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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/470,116      | 12/22/99    | CLAYCOMB             | R DDX13             |

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JULIE L BERNARD  
FAEGRE & BENSON LLP  
370 17TH STREET  
2500 REPUBLIC PLAZA  
DENVER CO 80202-4004

EXAMINER

NATNITHITHADHA, N

ART UNIT PAPER NUMBER

3736

DATE MAILED:

05/25/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

## Office Action Summary

|                      |                 |  |
|----------------------|-----------------|--|
| Application No.      | Applicant(s)    |  |
| 09/470,116           | CLAYCOMB ET AL. |  |
| Examiner             | Art Unit        |  |
| Navin Natnithithadha | 3736            |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 03 February 2000.  
 2a) This action is FINAL. 2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-11 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-11 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.  
 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved.  
 12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:

- 1) Certified copies of the priority documents have been received.
- 2) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- 3) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

15) Notice of References Cited (PTO-892)  
 16) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 17) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.

18) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_  
 19) Notice of Informal Patent Application (PTO-152)  
 20) Other: \_\_\_\_\_

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## DETAILED ACTION

### *Drawings*

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### *Specification*

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware of in the specification.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by

Leonardo, U.S. Patent No. 4,846,106 (US '106).

As to claims 1-7, and 9, Leonardo discloses the claimed invention of a self-contained electronic estrus detection device by detecting mounting activity, comprising: a waterproof modular housing 31; an integrated circuit 11 connected to a power cell 22, a

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pressure-responsive membrane switch 24, and an electro-acoustic transducer 28 to provide for an optional alarm function (see Figs. 1 and 2, and col. 3, line 38 to col. 4, line 42). Also, Leonardo discloses the integrated circuit 11 is connected to a liquid crystal display 12, which features a count-up, elapsed time digital display 13, indicating hours and minutes; a clock symbol 14 actuatable to flash, and a count-up mounting counter 16 (see col. 3, lines 50-63).

A similar disclosure to the one above is given in Leonardo's other patent, U.S. Patent No. 4,635,587.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leonardo, U.S. Patent No. 4,846,106 as applied to claims 8 and 11 above, and further in view of Senger et al, U.S. Patent No. 4,846,106.

Claim 1 was rejected under 35 U.S.C. 102(b) as discussed above.

As to claim 11, Leonardo discloses the claimed invention of a self-contained electronic estrus detection device by detecting mounting activity, comprising: waterproof modular housing 31; an integrated circuit 11 connected to a power cell 22, a pressure-responsive membrane switch 24, and an electro-acoustic transducer 28 to provide for

an optional alarm function (see Figs. 1 and 2, and col. 3, line 38 to col. 4, line 42). Also, Leonardo discloses the integrated circuit 11 is connected to a liquid crystal display 12, which features a count-up, elapsed time digital display 13, indicating hours and minutes; a clock symbol 14 actuatable to flash, and a count-up mounting counter 16 (see col. 3, lines 50-63).

As to claims 8 and 11, Leonardo does not disclose "a means for indicating suspect estrus, confirmed estrus or optimum time to breed" and an electronic means "detects mounting activity, actuating the processing means according to preprogrammed thresholds and indicates satisfaction of said thresholds by visible indicator". However, Senger et al discloses an estrous detection system, which senses mounting activity and "analyzes the duration of mounting to discriminate standing heat mountings from shorter duration spurious mountings which routinely occur in cattle herds. The number of standing heat mountings which occur in a fixed period, for example 8 hours, are counted and the frequency is compared to a threshold which determines whether estrus should be indicated..." (see Abstract, col. 9, line 31-45, and col. 10, lines 22-33). It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the two inventions because both patents disclose a mounting activity detection apparatus in which Leonardo discloses the structure that most resembles the claimed invention and Senger et al discloses a further aspect of a mounting activity detection apparatus to include an analysis of data.

### ***Conclusion***

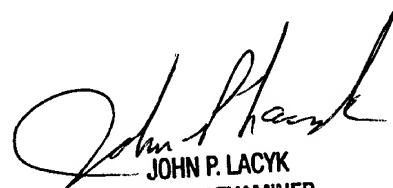
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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navin Natnithithadha whose telephone number is (703) 305-2445. The examiner can normally be reached on Monday-Friday, 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Lacyk can be reached on (703) 308-2995. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-0758 for regular communications and (703) 308-0758 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2701.

Navin Natnithithadha  
Patent Examiner  
GAU 3736  
May 17, 2001



JOHN P. LACYK  
PRIMARY EXAMINER